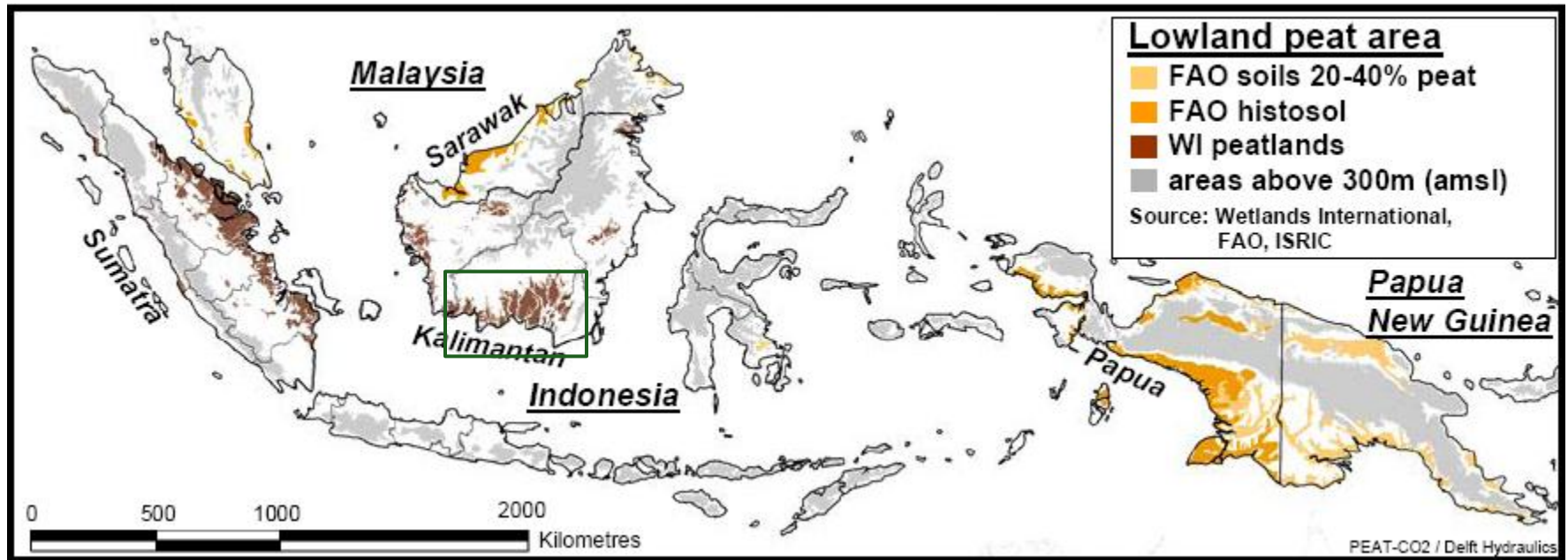# Katingan Peatland Restoration and Conservation Project

Global Symposium:
REDD+ in a Green Economy

19-21 June 2013, JW Marriott Hotel,
Jakarta, Indonesia

Dharsono Hartono,

PT. Rimba Makmur Utama

PT. Rimba Makmur Utama

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# Opportunities for REDD+ in Indonesia's Tropical Peatlands

Source: Hooijer, et al (2006)

Key Facts:

- Indonesia has 22.5 million hectares of peatland, approx. **12%** of its land
- Emissions from peatlands in 2005 amounted to **41%** of Indonesia's total GHG emissions
- Peat related emissions are estimated to be 1 Giga Tons CO2e/year

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Opportunities for REDD+ on Peatland in Central Kalimantan
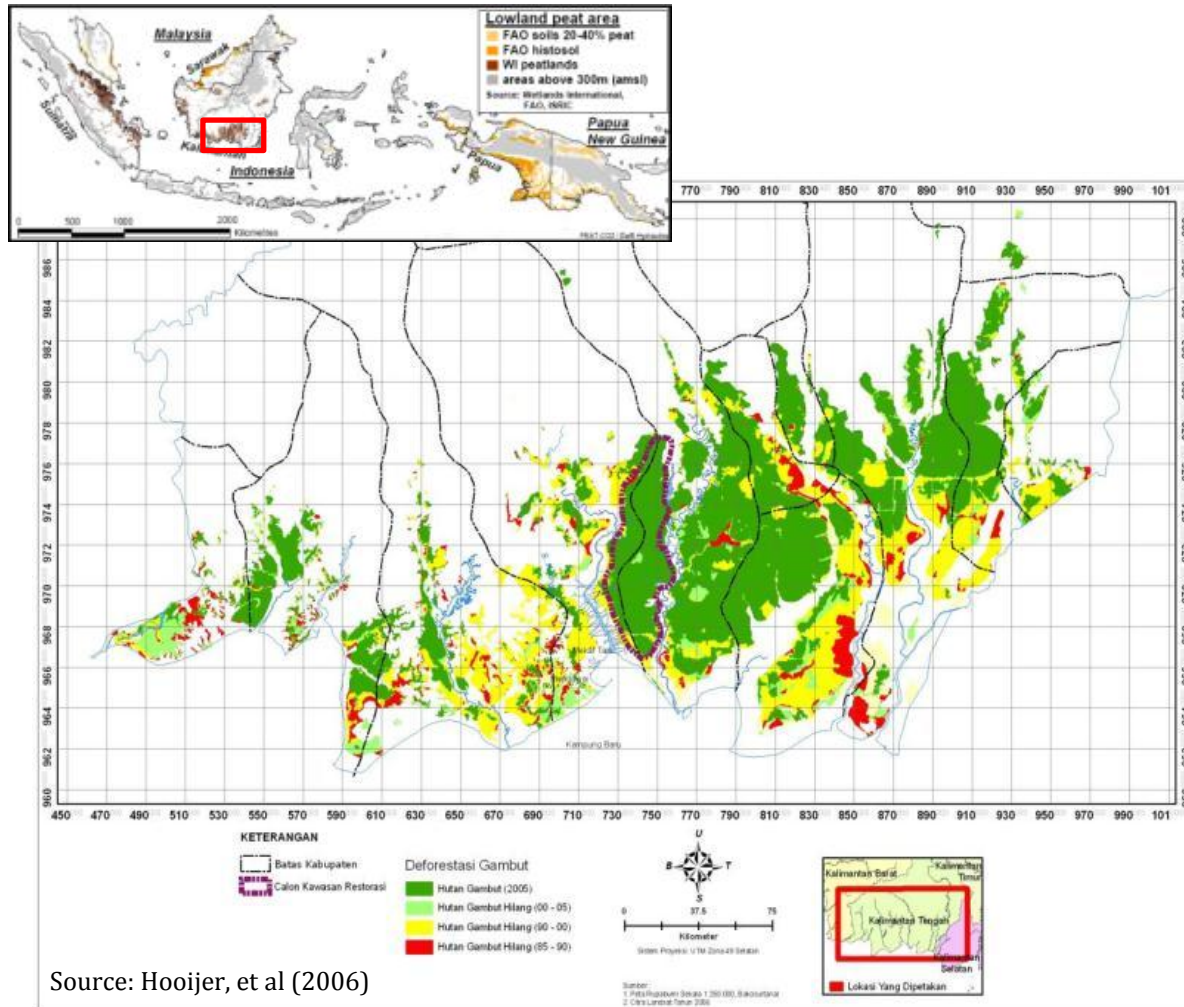
Source: Hooijer, et al (2006)

Key Facts:

- Annual GHG emissions in Central Kalimantan amount to **15%** of Indonesia's total emissions (2005).

- Peat related emissions in Central Kalimantan in 2005 amounted to **63%** of the province's total emissions (or **9%** of national total emissions).

- **23%** of the province's total GHG emissions are due to **peat decomposition** and **40%** are due to **peat fire** (2005).

Source: DNPI (2010)

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Overview of Katingan Peatland Restoration and Conservation Project

- **Project developer: PT. Rimba Makmur Utama**
- **Concession: IUPHHK-RE (Ecosystem Restoratio)**
- **Location: Kotawaringin Timur and Katingan Dist.**
- **Total area: 203,570 hectares**
- **State forest designation:**
  - **Production forest (HP): 87.91%**
  - **Convertible production forest (HPK): 12.09%**
- **Standards:**
  - **Climate Community and Biodiversity Alliance**
  - **Verified Carbon Standards**

Priority	%	Activities
Non-Forest area	12.74%	Fire prevention & mitigation, rewetting, rehabilitation heavily degraded areas, canal blocking, native species planting
Disturbed Forest	34.21%	Rehabilitation of degraded areas, canal blocking, restoration and enrichment planting, protection and enforcement
Intact Forest	50.05%	Natural regeneration, protection and enforcement, wildlife habitat management
Total	100% (203,570 ha)	
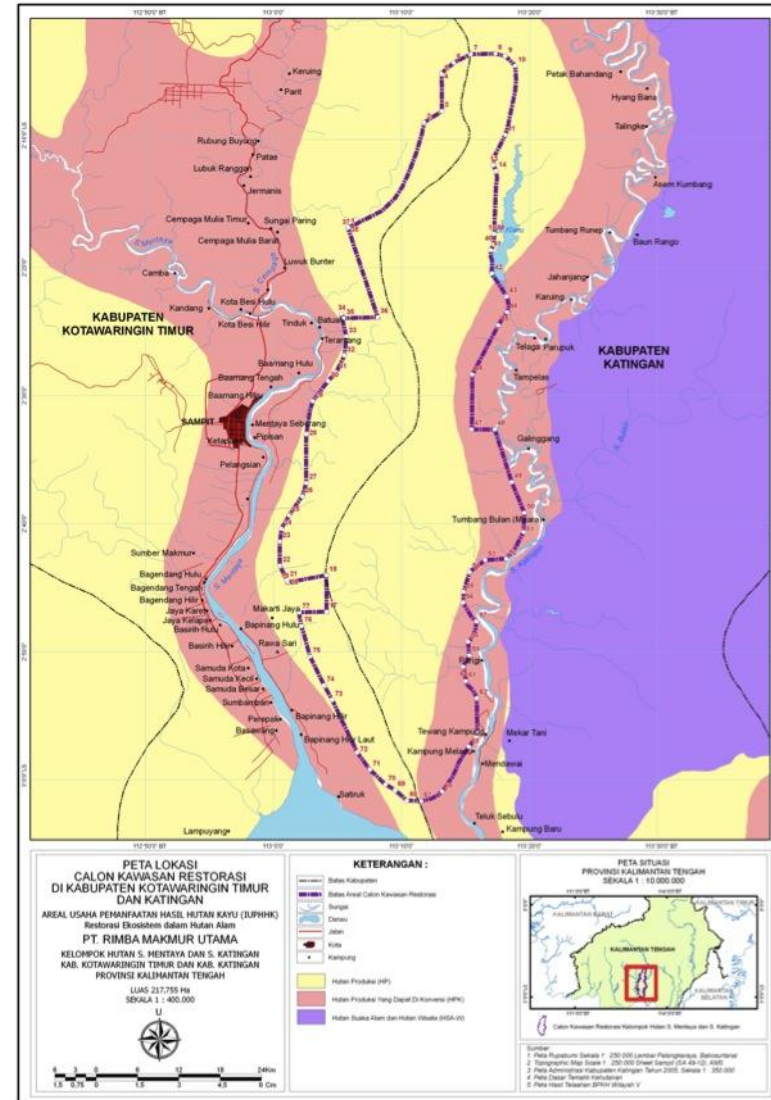
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Ecosystem Restoration Concession (ERC) and REDD+

IUPHHK-RE: Ecosystem Restoration

- Law was created in 2007 and revised in 2008
- Applicable in areas designated as production forest
- Permit holder can secure rights to sell carbon credits
- 60 years with the possibility of 35 years extension
- 1st concession: Harapan Rainforest, a 52,000 hectare concession in lowland rainforest in Sumatera (total 4 ERCs as of today)

Additionality: The additional carbon storage resulting from forest management activities additional to "Business as Usual". In the case of avoided deforestation, fewer forest loss than expected.
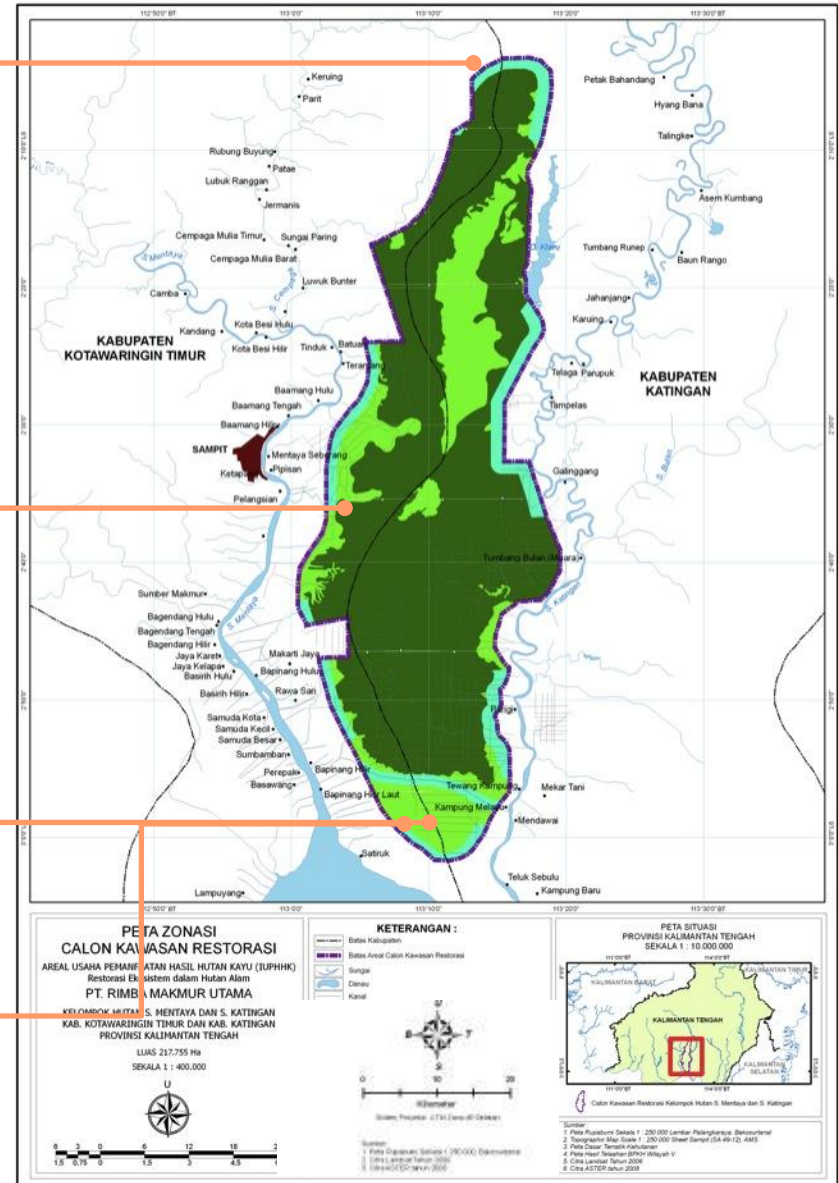
Permanence: Ensuring that the net stored forest carbon remains stored over time.

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Threats: Forest Conversion, Mining, Illegal Logging

Existing threats

- Forest conversion
- Canals
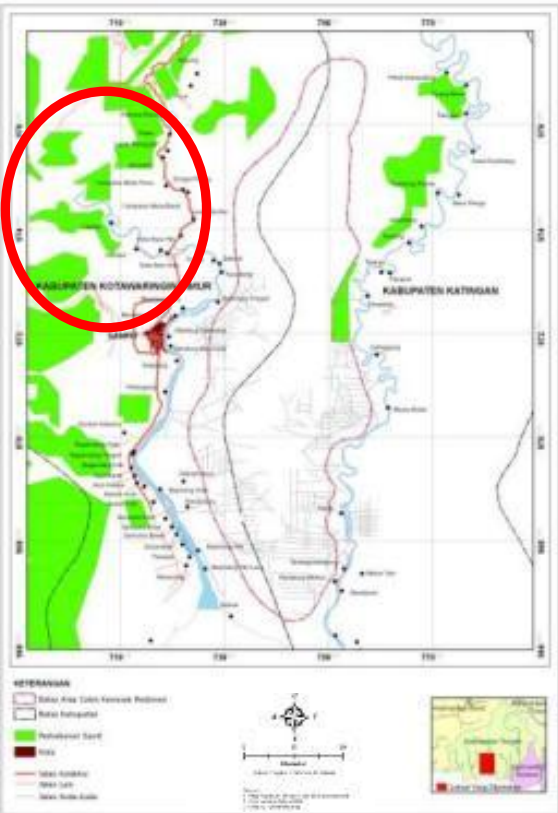- Land clearing for agriculture
- Zircon/gold mining
- Illegal logging
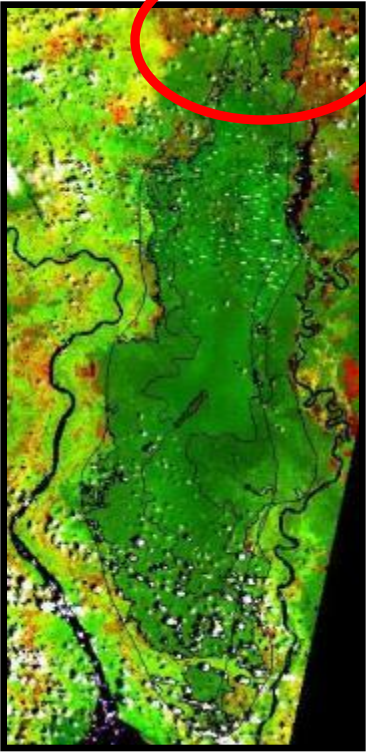
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Threats: Forest Conversion for Oil Palm Plantations

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Threats: Mining

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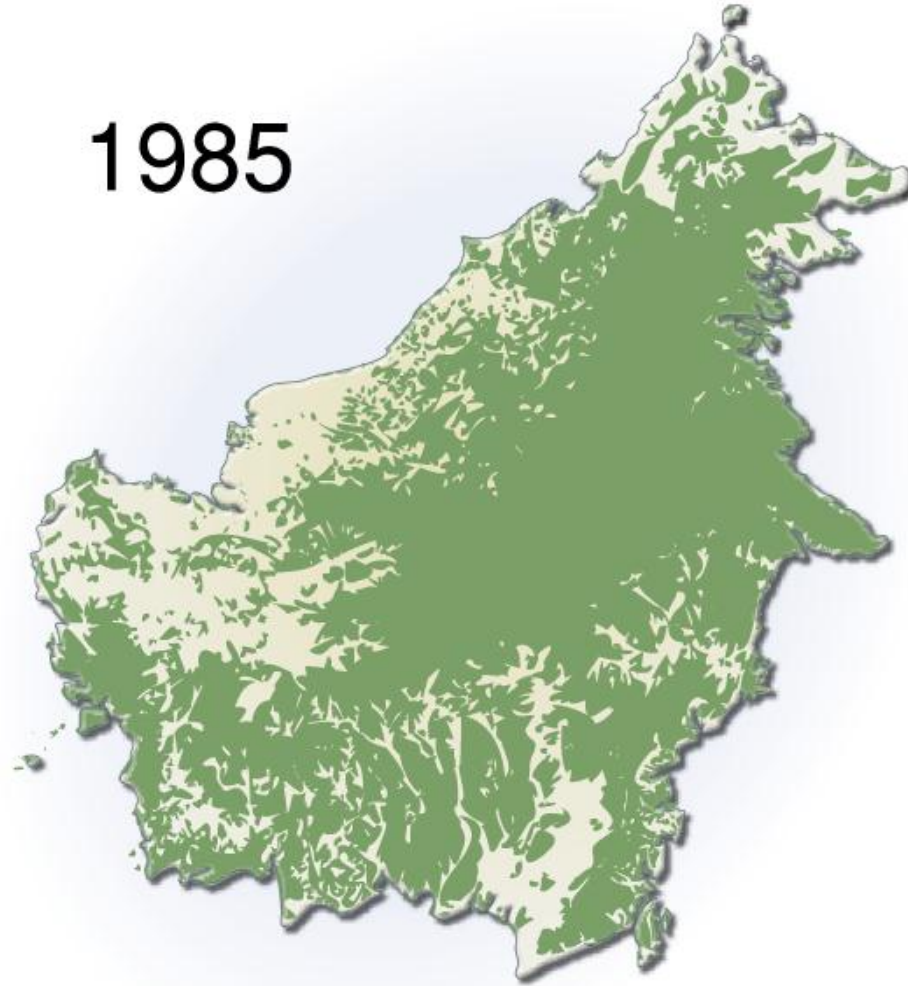# Threats: Illegal Logging

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Business as Usual Scenario

Large-scale forest conversion and GHG emissions from peat decomposition and fires
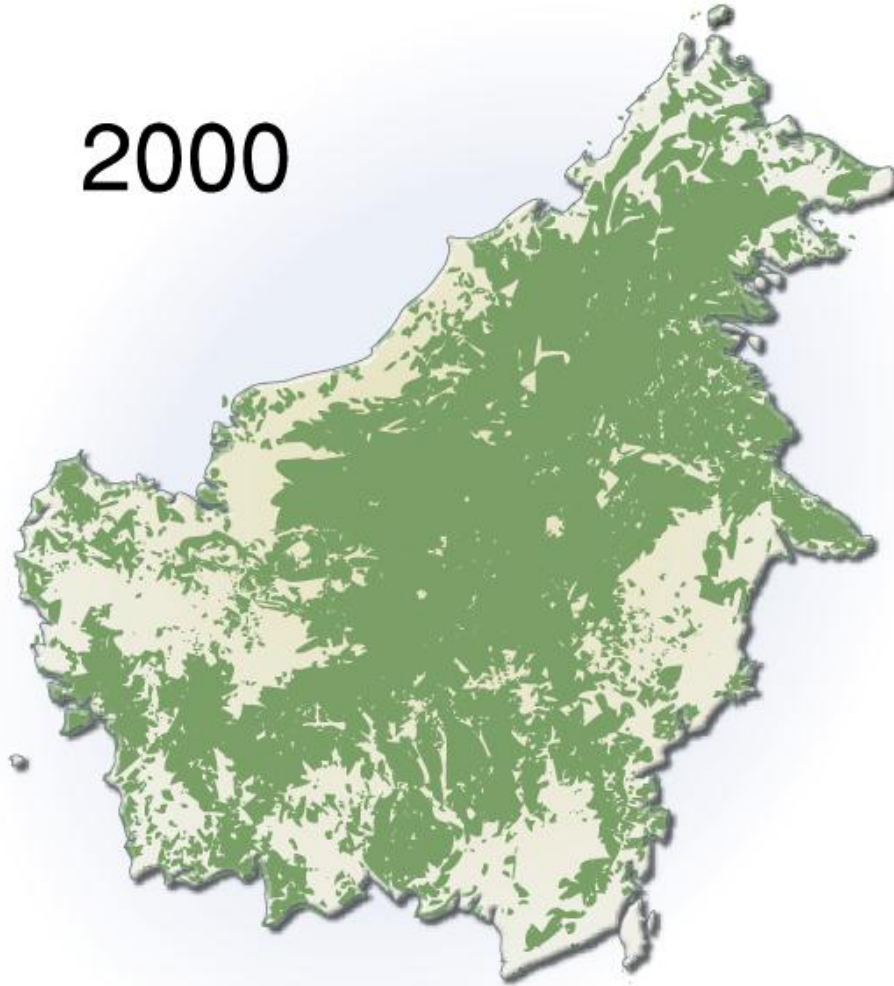
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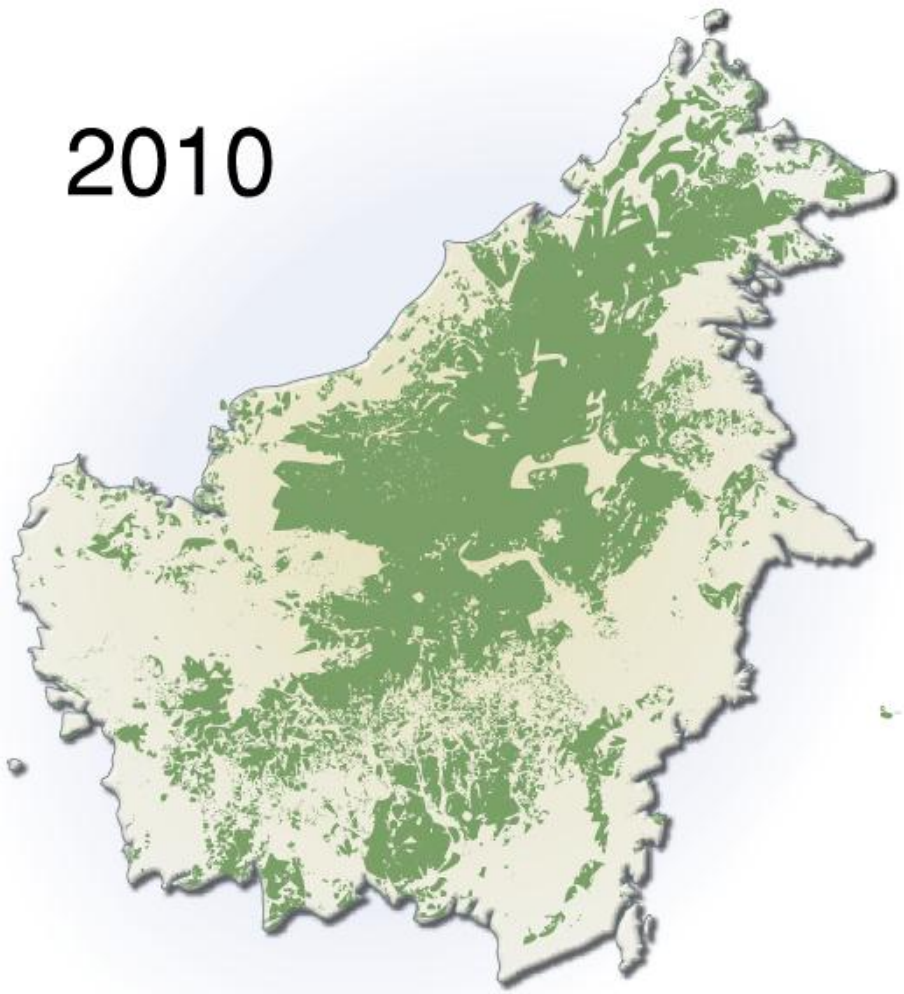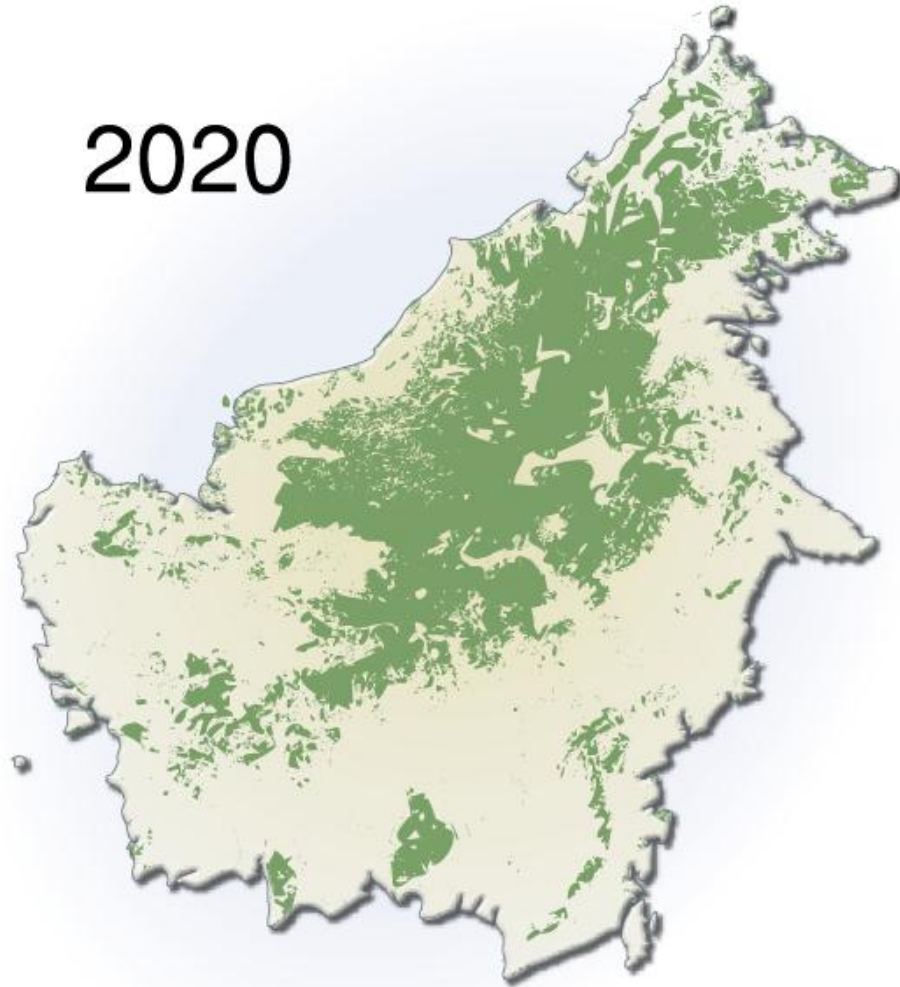
Business as Usual Scenario

1985

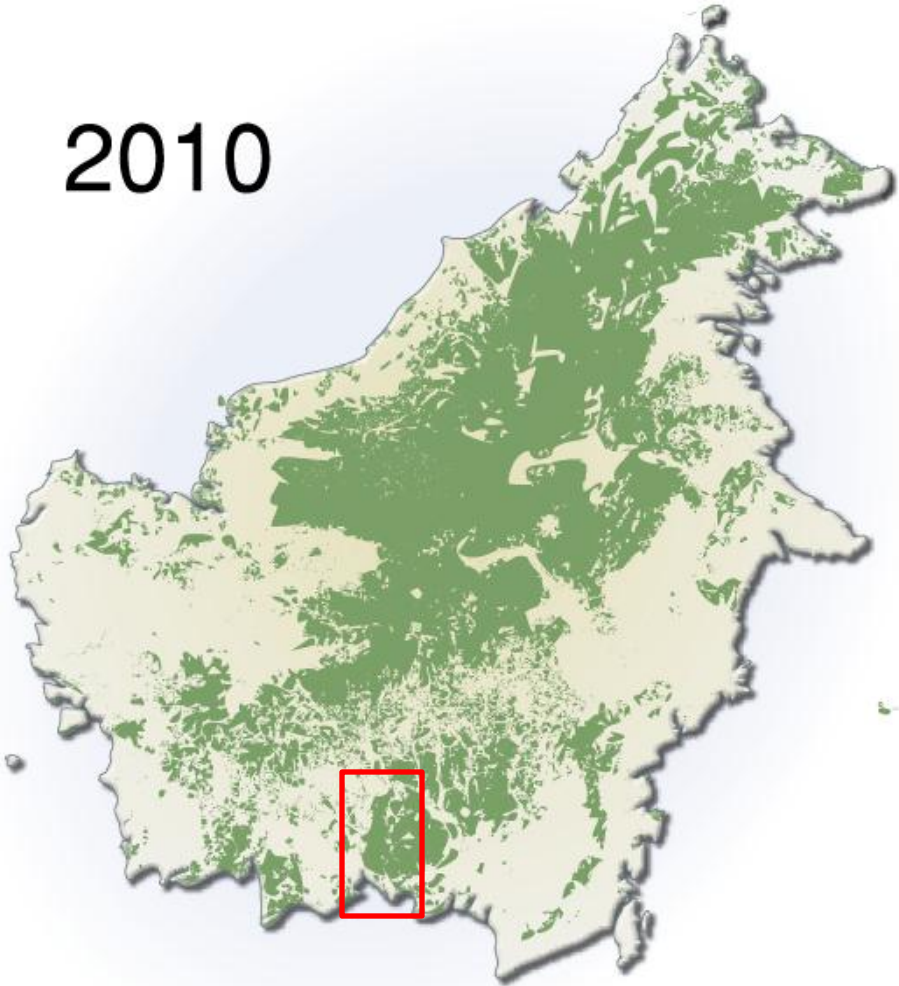# Business as Usual Scenario

2000

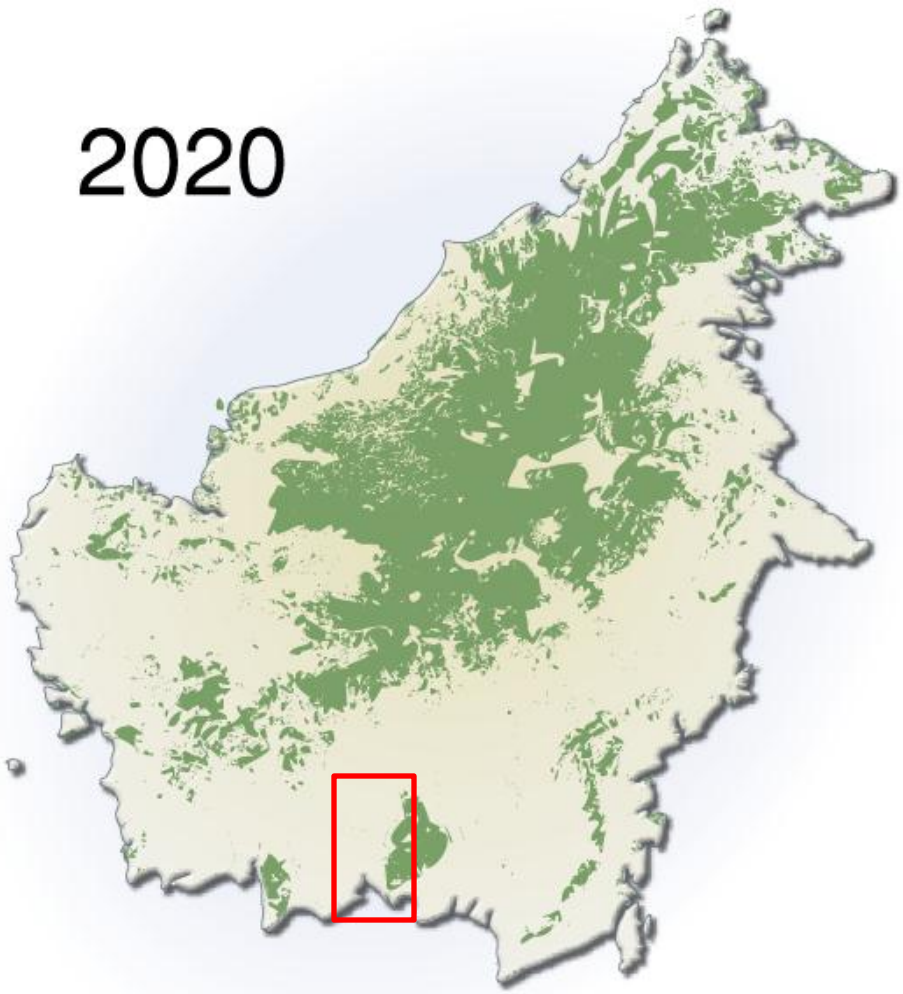2010

Business as Usual Scenario

2020

Business as Usual Scenario

2010

©WWF

Business as Usual Scenario

2020

©WWF

Solution: Ecosystem Restoration and REDD+ Activities

Project activities	Not exhaustive
Ecosystem restoration	**Community development**
1. Water system management	9. Non-timber forest products
2. Preparation and monitoring of PSPs	10. Agroforestry (rubber and jelutung)
3. Reforestation	11. Tourism
4. Enrichment	12. Salvaged wood production
5. Maintenance	13. Microfinance enterprises
Forest resources preservation	14. Efficient energy development
6. Protection and enforcement	15. Aquaculture
7. Forest fire mitigation	
8. Research and development	

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Ecosystem Restoration and REDD+ Approaches

Components	Methodologies	
REDD+ strategy and planning	- Stakeholder mapping - Free, prior and informed consent (FPIC) - Policy analysis - Community organizing and participatory planning and mapping - Geographic information system - Management plan development - Participatory monitoring and evaluation	
Protection and enforcement	- Zonation and boundaries demarcation - Threat analysis - Community organizing and participatory planning and mapping - Geographic information system - Forest ranger training - Forest fire prevention and mitigation training - Participatory monitoring and enforcement with communities	
Forest conservation and carbon stock measurement and monitoring	- Remote sensing (e.g., stallite image, radar, aerial photography, etc) - GIS - Identification of high value conservation areas - Establishment of permanent sample plots across the project area - Independent verification - Participatory ecological assessment - Biomass carbon stock measurement - Biodiversity survey and threat analysis - Hydrological modeling	

Not exhaustive

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Ecosystem Restoration and REDD+ Approaches (continued)

Components	Methodologies	Not exhaustive
Information, education and communication	• Target audience analysis based on stakeholder mapping • Print and broadcast media • Media monitoring and content analysis	
Community engagement and livelihoods	• Microfinance facility design • Microenterprise development and capacity building • Business planning • Socio-economic impact monitoring and evaluation	
Marketing	• Branding development • Direct marketing • Brokerage	
Project operational and financial management	• Annual work planning and budgeting • Human resource development program • Integrated financial system development	

101 EAST

February 18-25, 2010
Cash for Carbon

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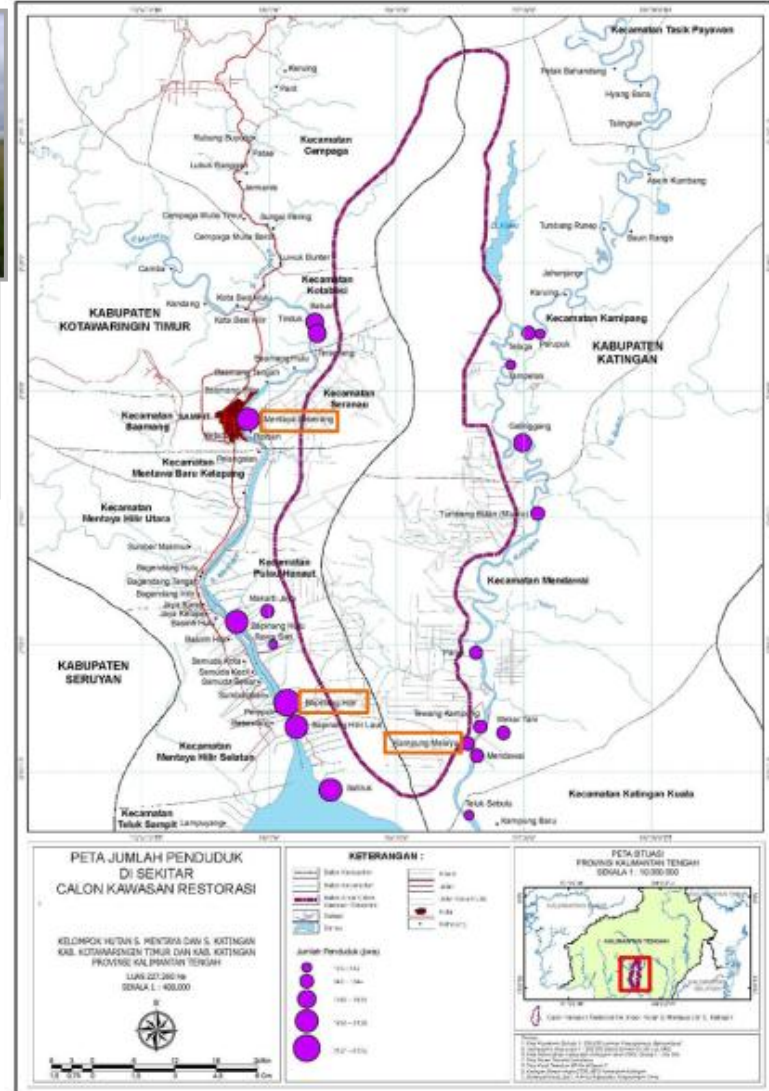# Social Safeguards: Forest-dependent Communities

1. Coffee 2. Copra 3. Rice
4. Fisheries
5. Natural rubber
6. Rattan 7. Gemor

Villages	Rattan collection /week	Volume/ week
•Perigi	4 days	500kg
•Galinggang	5 days	500kg
•Tumbang Bulan	6 days	600kg
•Telaga	4 days	500kg
•Batuah	4 days	200 kg

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Social Safeguards: FPIC & Participatory Mapping with Communities

PT. RMU and Mazars Starling Resources has been working with *Yayasan Puter* on community engagement and consultation since early 2009.

Working with communities of village of Bapinang Hulu, Sub-District Pulau Hanaut, District Kotawaringin Timur

Producing participatory sketch maps with community members
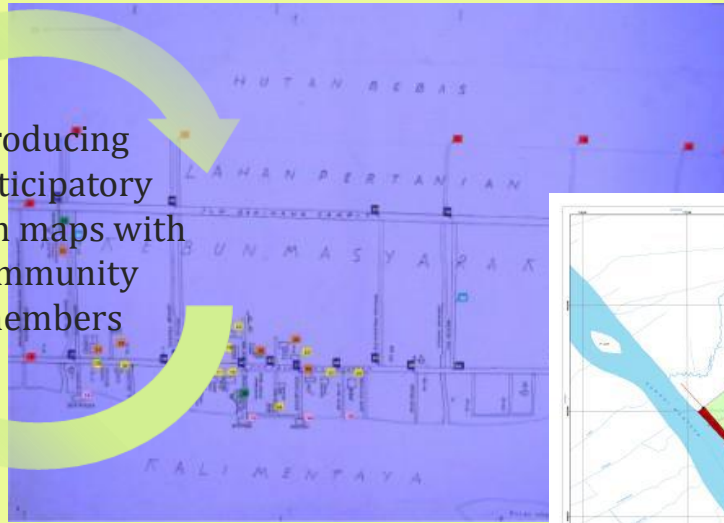
Digitizing the maps and put them into GIS
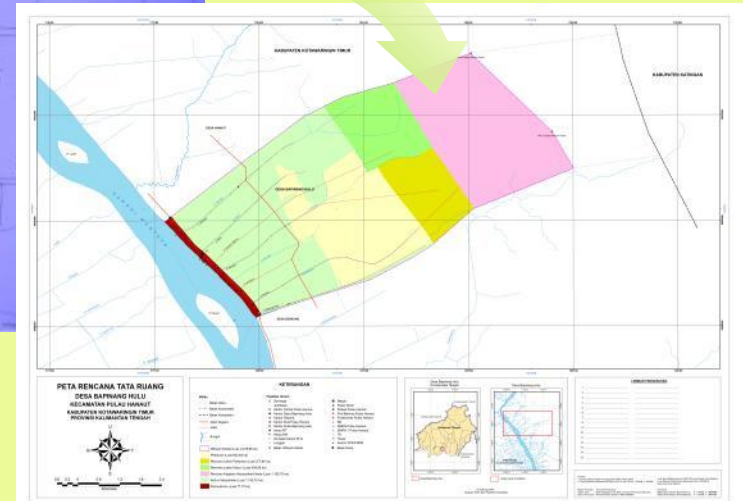
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Social Safeguards: Empowering Communities through Photography

- PT. RMU and Mazars Starling Resources have been working with ***Photovoices International*** on community empowerment and engagement since 2010.

- Photovoices applies a unique methodology – using village photography and storytelling – to help bring local knowledge from communities into the REDD+ dialogue and to inform socio-economic development needs.

© Eko Setiawan – Photovoices Katingan Doc

Deer -- *"menjangan"*-- often pass by and look for food around the forests in Handel River, which crosses 4 km to the west of Tewang Kampung Village. People use this spot to put traps out for deer, and they will check the trap 7 – 10 days after. The people don't always get deer in their traps. It depends on their luck.

© Photovoices Katingan Doc

© Dihim – Photovoices Katingan Doc

Nusa River is a place where people catch fish using different kinds of traditional tools including nets. Unfortunately, for the last 10 years this river has been narrowing down due to the growth of lung plant/water hyacinth, and other plants.

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Environmental Safeguards: Biodiversity, Wildlife Habitat, and HCVF

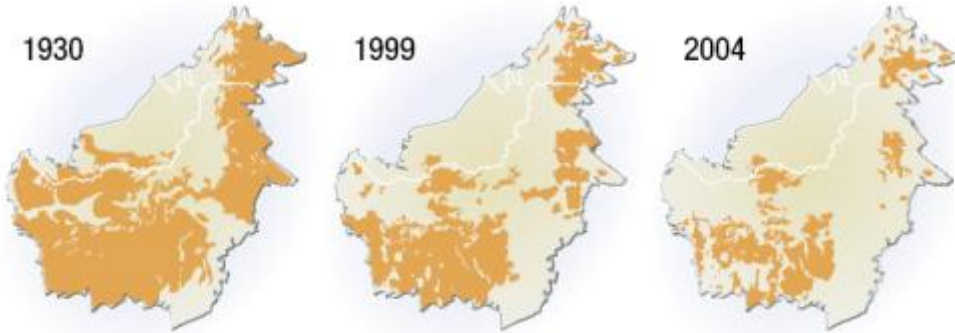Figure 4: Changes in orangutan distributions 1930–2004. Source: WWF.

Katingan Peat Swamp Forest hosts
2.4 – 3.7 orangutans per km^2

Morrogh-Bernard, Helen (2008). Wildlife Research Group, the Anatomy School, University of Cambridge, Cambridge, UK.

Orangutan
(*Pongo pygmaeus*)

© PT RMU

The Clouded Leopard
(*Neofelis nebulosa*)

Rhinoceros Hornbill
(*Buceros rhinoceros*)

Katingan supports the sixth largest population of orangutans in the world (Singleton et al., 2004),

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Areas used as habitats for viable population of species which are threatened, restricted ranged or protected (results from a rapid HCV 1.3 assessment)
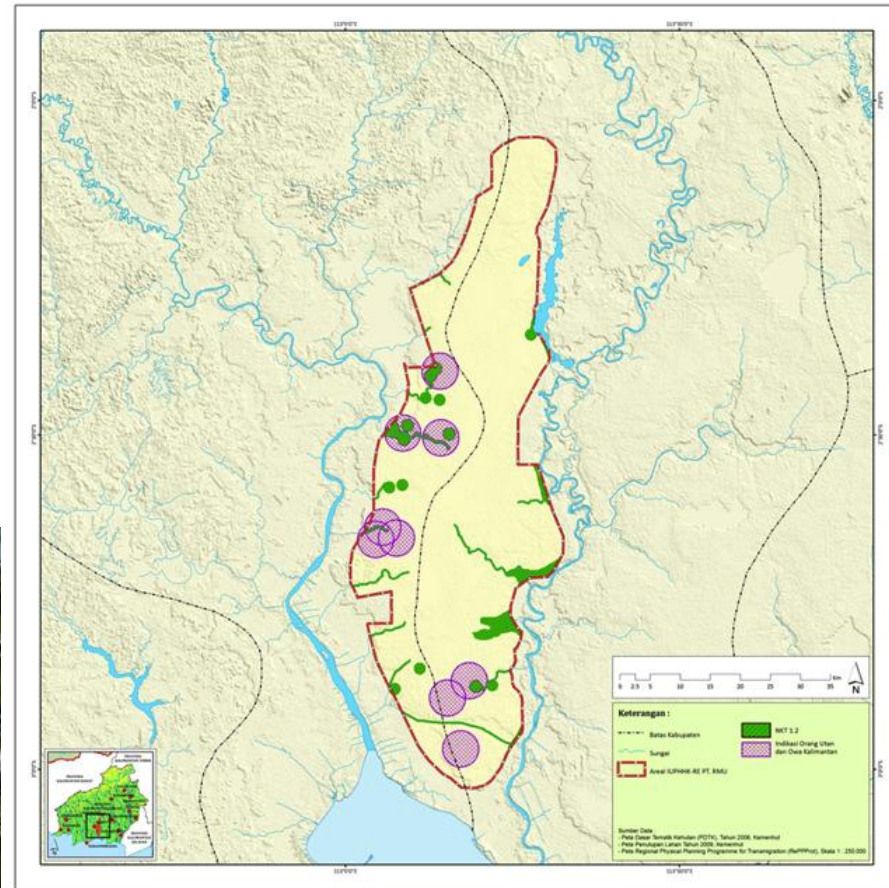
Source: Ministry of Economy, Trade and Industry Japan. (2012). *Methodology Design Document for Reducing Emissions from Deforestation and Degradation of Undrained Peat Swamp Forests in Central Kalimantan, Indonesia.*

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Project MRV: Methodologies for Voluntary Market and Bilateral Offset Schemes
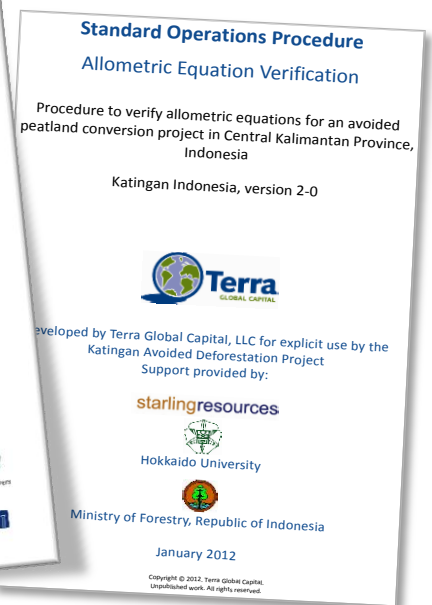

- SOP for Field Measurements

- SOP for Allometric Equation Development and Verification

- VCS Methodology: Currently undergoing the 2nd validation process

- Proposed Methodology Design for Bilateral Offset Credit Mechanisms between Indonesia and Japan

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Challenges: Linking REDD+ with Indonesia Development Priorities

At the G20 Summit President Susilo Bambang Yudhyono committed to a 26% emission reduction target by 2020 making Indonesia the first large developing country to do so

At the B4E Summit Indonesia President Yudhoyono stated "
… our green economic mantra is called "pro-growth, pro-job, pro-poor, pro-environment" – and of course pro-business … we have been very mindful of the need for "growth with equity", and for an inclusive and sustainable development"

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Challenges: Reality Check

- **Forest Governance: Legal Clarity**
    - Lack of understanding of REDD+ resulting in unrealistic expectations
    - Lack of clarity in division of roles and responsibilities between central and local governments and among sectors
    - The need for transparent and accountable benefit distribution schemes

- **Carbon Accounting: Credible Baseline Data**
    - Balancing national and sub-national approach
    - Expensive and lengthy process in developing methodologies

- **Market Uncertainties: Short-term vs. Long-term Return**
    - Limited REDD transaction in the voluntary market
    - Uncertainty of the future of REDD in compliance market

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Recommendations: Putting Theory into Practice

- **Develop a Proof of Concept**
  - Promote and/or scale up project-level REDD+ initiatives
  - Strengthen forest governance, secure community benefits, and develop jurisdictional, nested carbon accounting and monitoring methodologies
  - Communicate lessons learned to wider stakeholders

- **Prime the Pump**
  - Create a fund to support early REDD+ demonstration projects
  - Create opportunities for public private partnerships

- **Build the Technological Capacity**
  - Support the development and application of advanced remote sensing technologies
  - Enhance the accuracy and consistency of forest stratification and peatlands

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Thank you

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